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YALE UNIVERSITY

DEPARTMENT OF MICROBIOLOGY

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June 15, 1962

Dr. Joshua Lederberg
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Stanford University Medical School
Palo Alto, California

Dear Josh:

Thanks for the note. Herewith my analysis of the present semantic confusion:

<u>State of bacterial genetic element</u>	<u>Lederberg designation</u>	<u>Clark & Adelberg designation+</u>
(1) Only on chromosome	chromogene	chromosomal gene
(2) Alternating between a chromosomal location and an extra-chromosomal location	episome	episome
(3) Extra-chromosomal only	(TERM NEEDED)	plasmid
(4) Capable of extra-chromosomal state (whether or not capable of chromosomal attachment)	plasmid	(TERM NEEDED)

(+ Our interpretation of your 1952 proposal is the same as Jacob & Wollman's - see pages 327-328 of their book).

The problem is that we need four terms to cover what may be operationally known about any given element. Your usage leaves us without a term for obligatory extra-chromosomal elements (which may well be an important concept); our usage leaves us without a term for elements which we find in the extra-chromosomal state but for which an alternate chromosomal state is undetermined.

Thanks for the word on the F- state of what I presume were equivalent to "het" diploids.

Greetings to Esther.

As ever,



Edward A. Adelberg

EAA:jtv